

Amendments to the Specification:

Please replace the paragraph beginning on page 2, line 10, and continuing to page 3, line 11, with the following rewritten paragraph:

The station apparatus 10 includes a plurality of optical transmitters 101 - 10n a plurality of optical receivers 111 - 11n, a wavelength multiplexer 3 which outputs signals 1011 to 10n1 provided from the optical transmitters 101 - 10n as wavelength multiplexed optical signals, and a wavelength demultiplexer 4 which demultiplexes a wavelength multiplexed optical signal 2020 and outputs the resulting signals to the optical receivers 111 to 11n. The wavelength demultiplexer 7 demultiplexes a wavelength multiplexed optical signal 2010 provided from the wavelength multiplexer 3 of the station apparatus 10 and outputs the resulting signals. The wavelength multiplexer 8 multiplexes individual optical signals 2021 - 202n and outputs the resulting signal to the wavelength demultiplexer 4 of the station apparatus 10. A remote apparatus 20-1 includes an optical receiver ~~220-1~~ 220-1 which receives an optical signal 2011 among signals provided from the wavelength demultiplexer 7, an optical transmitter 230-1 which outputs each individual optical signal 2021 to the wavelength demultiplexer 8, and wavelength controller 240-1 which controls the wavelengths of optical signals to be transmitted from the optical transmitter 230-1. The configurations of remote apparatuses 20-2 - 20-n, which are not shown, are similar to the configuration of the remote apparatus 20-1. Each of the remote apparatuses has an optical receiver 220-2 - 220-n which receives a signal 2012 - 201n among signals provided from the wavelength demultiplexer 7, an optical transmitter 230-2 - 230-n which transmits each individual optical signal 2022-202n to the wavelength multiplexer 8, and a wavelength controller 240-2 - 240-n which controls the wavelengths of optical signals to be transmitted from the optical transmitter 230-2 - 230-n.

Please replace the paragraph on page 6, lines 7 to 23, with the following rewritten paragraph:

The transmission system and its apparatuses according to the present invention do not require a separate apparatus for detecting unused wavelength. Instead, a remote apparatus that actually performs communication autonomously detects an unused wavelength. Moreover, the transmission system and its apparatus are low-cost because only remote apparatuses require a wavelength tunable filter and a wavelength tunable laser and the station apparatus does not require any wavelength tunable devices. Furthermore, the transmission system and its apparatuses do not have to transmit an extra signal for indicating a line is not in use. Unlike the system disclosed in the first document, the transmission system of the present invention does not cause a collision between signals. The configuration and operation of the transmission system and the apparatuses used therein according to the present invention differ from the technology shown in FIG. 1 and the technology described in the first patent document in the respects described above.

Please replace the paragraph beginning on page 10, line 12, and continuing to page 11, line 5, with the following rewritten paragraph:

In the station apparatus 1 in FIG. 2, the optical transmitters 101 – 10n ~~outputs~~ output optical signals 1011- 10n1 having different wavelengths. The optical wavelength multiplexer 3 multiplexes the optical signals 1011 to 10n1 and outputs a wavelength-multiplexed optical signal 2010. The wavelength demultiplexer 4 receives a wavelength-multiplexed optical signal 2020 outputted from the optical coupler 6, demultiplexes it into optical signals 1111- 11n1 of different wavelengths, and outputs them. The optical receivers 111 - 11n receive the optical signals 1111 – 11n1 of different wavelengths and convert them into electric signals 1110 – 11n0, respectively. The optical output controller 9 determines based on optical reception status signals 1310 – 13n0 whether or not the optical receivers 111 – 11n are receiving an optical signal. If they are not receiving an optical signal, the optical output controller 9 provides an optical output control signal 1210 – 12n0 to any one of the optical ~~transmitter~~ transmitters 101 – 10n that has a corresponding transmitting wavelength to cause it stop

outputting optical signals. This is performed in order to allow remote apparatuses to detect an unused wavelength. The optical signals 1011 - 10n1 pair up with the optical signals 1111 - 11n1, respectively, and have the same wavelength as that of their counterparts.

Please replace the paragraph on page 16, lines 3 to 14, with the following rewritten paragraph:

When a remote apparatus 2-m is added in addition to the existing remote apparatuses, its optical transmitter 23-m does not output optical signals in the initial state. Its wavelength controller 24-m sends a wavelength control signal 205-m to the wavelength filter 21-m to adjust the wavelength to be any of the wavelengths used in the system. The optical receiver 22-m can receive an optical signal 201-m of that separated wavelength ~~separated~~. The wavelength controller 24-m receives from the optical receiver 22-m an optical reception status signal 204-m indicating whether an optical signal is being received and determines whether or not an optical signal with the corresponding wavelength is being received at the optical receiver 22-m.

Please replace the paragraph on page 17, lines 15 to 26, with the following rewritten paragraph:

In contrast to the first embodiment, if it is determined that an optical signal with the wavelength set in the remote apparatus is not received, the wavelength controller 24-m adjust the wavelength filter 21-m so that it ~~separate~~ separates an optical signal of another wavelength, and then performs the sequence of operations described above. In this way, the wavelength controller 24-m changes the optical signal wavelength to be separated by the wavelength filter 21-m from one to another and makes determination as described above until an optical signal wavelength that the optical receiver 22-m receives is found. If such a wavelength is found, the wavelength is set as the wavelength used in the remote apparatus 2-m.

Please replace the paragraph on page 18, lines 1 to 20, with the following rewritten paragraph:

All optical transmitters 101 – 10n in the station apparatus 1, including one that outputs a wavelength not in use, are outputting optical signals. Because the wavelength demultiplexer 7, instead of an optical ~~couple~~ coupler, is used in the second embodiment, a wavelength-multiplexed optical signal 2010 is separated into optical signals 2011- 201n and outputted. Accordingly, only an optical signal with a particular wavelength is being outputted at each port at which each remote apparatus is to be connected. Accordingly, a remote apparatus 2-m receives the optical signal with a wavelength inputted and autonomously sets that wavelength as the wavelength to use in the apparatus. That is, if a remote apparatus 2-m is added, its wavelength controller 24-m controls the wavelength filter 21-m so as to separate wavelengths one by one, and the optical receiver 22-m receives them and determines whether or not an optical signal with the corresponding wavelength is being received. If it is determined in the remote apparatus 2-m that an optical signal of the particular wavelength is received at the optical receiver 22-m, that wavelength is set as the wavelength to be used in the remote apparatus 2-m.

Please replace the paragraph on page 19, lines 11 to 20, with the following rewritten paragraph:

The present invention has an advantage that a remote apparatus can be readily ~~be~~ attached because the remote apparatus can autonomously determine an available wavelength, set a transmission wavelength, and perform wavelength multiplexing communication with a station apparatus. The present invention has another advantage that when the wavelength to be used in remote apparatuses in a system must be changed because of a change to the system, each of the remote apparatuses can autonomously change its wavelength without the need for a maintenance person to make a change to each remote apparatus.